Teton County Weed and Pest District
7575 South Highway 89
Jackson, WY 83001
Mark Daluge, Assistant Supervisor
mdaluge@tcweed.org
(307) 733-8419

Dear Mr. Daluge,

We received your petition for exemption, dated August 17, 2021 (Docket No. FAA-2021-0735) to operate the PrecisionVision 35X unmanned aircraft (UA) in aerial mosquito and noxious weed control operations in remote operating environments. This email is to inform you that the following information is required to continue processing your petition for exemption.

We request you provide the following information to us no later than September 30, 2021:

A. Provide information describing your plan for compliance with, or confirm your intent to petition for relief from 14 CFR §§ 61.3(a)(1)(i), 91.403(b), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b).

B. Confirm the maximum weight you are requesting for operation of the PrecisionVision 35. Your petition states both *no more than 205 pounds* and *no more than 72 pounds*, and 49 U.S.C. 44807 approval for the PrecisionVision 35 (PV-35) UA is limited to no more than 79 pounds.
    1. Confirm the payload capacity (the volume/quantity of material to be carried/dispersed in pounds/gallons.
    2. Confirm whether there are battery options that may affect the weight of the UA.

C. Confirm the operating hours you are requesting for the operation of the PrecisionVision 35. Your petition states *during daylight hours (30-minutes after official sunset and 30-minutes before sunrise)*, which does not align with the definitions set forth in 14 CFR § 1.1.

D. A copy of the current TCWP/PrecisionVision Operating Manual & Training Guide.

E. Information documenting normal, abnormal, and emergency operations, which should include, as applicable, the following:
    1. Normal Procedures – Such as preflight planning, airspace coordination, weather planning, etc.
        a) Procedures to cope with the UA leaving the desired "flight geography" or operating area
        b) Procedures to cope with adverse operating conditions (e.g., decreasing ceilings or visibility, etc.)
        c) Procedures to cope with the deterioration of external systems supporting the operation
        d) De-confliction scheme, i.e., the criteria that will be applied for the decision to avoid incoming traffic. In cases where the detection is performed by Visual Observers (VOs), the use of clear phraseology shall be established.
        e) Manned aircraft avoidance procedures
        f) Avoidance maneuvers may rely on performing a rapid descent to a safe altitude, or an immediate rapid landing (when a cleared landing space can be verified prior to descent).
    2. Emergency Procedures – To cope with emergency situations (where there is a loss of control of the operation that cannot be recovered), including at least:
        a) Procedures to avoid or, at least minimize, harm to third parties in the air or on the ground. With regard to the air risk, an avoidance strategy to minimize the collision risk with another airspace user (in particular, an aircraft with people on board).
        b) Procedures for the emergency recovery of the UA

F. Information detailing how the UAS and all associated systems will be maintained and repaired, which should include, as applicable, the following:
    1. Acceptable documentation will address the airframe, engine(s)/motor(s), propeller(s)/rotor(s), appliances, and any additional item or part that makes up the unmanned aircraft system (UAS) as a whole. This includes the Ground Control Station (GCS) and Controller.

G. Information detailing the certification, qualification, and training of all required crewmembers, which should include, as applicable, the following:
    1. Describe the minimum pilot certification required.
    2. Describe all operator specific qualification and training requirements.
    3. Other required crew (VO, maintenance personnel) training.
    4. A copy of PrecisionVision Aerial Application Training Course (Training Program)

H. Information detailing your Concept of Operations (CONOPS), which should include, as applicable, the following:
    1. General Information – What is the very broad "high level" situation proposed by the petition?
        a) Geographic operating boundaries (lack of specific details implies nation-wide operation)
        b) Will launch/fly/recovery only occur over private or controlled-access property with owner's permission?
        c) Describe the command and control link
        d) Supply information on dimensions, materials & processes necessary to define the vehicle design
        e) Identify the congestion of the proposed operating area(s)
        f) Identify the vehicle's maximum weight
        g) Describe the proposed airspace classes in which operations will be conducted
        h) Describe the location of the control station
    2. Execution – How will the intended operation/mission be executed?
        a) Identify airspace considerations (peculiarities & congestion of particular airspace, special use, etc.)
        b) Launch & recovery details/location(s)
        c) Describe the vehicle's proximity to people, infrastructure and surface vehicles
        d) Describe the vehicle's proximity to other airspace users
        e) Identify automation level (occasional autopilot, 100% autonomous, manual control, etc.)
        f) Minimum crew and support personnel
        g) Role(s) of the crew and support personnel
        h) Will flight over persons or vehicles not involved in the operation occur? i.e., road crossings, etc.
        i) Identify any requests for airspace be blocked-off for their exclusive use
        j) What is the operator/UAS ratio (1:1, etc.)
        k) Plans for safety of operator(s) and observer(s)
    3. Command & Signal – Describe command & signal amongst the various components of the entire system (vehicle, control station, control link, observers, etc.).
        a) Describe communication between the operator, observer and crewmembers (visual, radio, etc.)
        b) Describe the electronic security of the control link
        c) Describe the physical security of the operator and control station
        d) Describe real time situational awareness features
        e) Describe the number of operators, and hand-off between control stations (direct/"daisy chain", etc.)
        f) Describe Lost Link procedures or Loss of Positive Control procedures
        g) Describe communication expectations w/ATC
        h) Describe the emergency procedures
    4. Administration & Logistics – Coordination required to conduct the operations.

a) Community outreach plans (flying/non-flying public, municipalities, airports, etc.)
b) When/if flight plans will be filed with Air Traffic Control (VFR/IFR)
c) Liaisons with Air Traffic Control (ATC)
d) MISHAP Reporting Procedures
e) When/if NOTAMs will be posted

The requested information listed above should be in sufficient detail to enable the FAA to conduct a thorough risk-based evaluation of your proposed operation in order to determine that the operation can be safely conducted.

Please submit the additional information (non-proprietary) as a comment to your docket at www.regulations.gov, and save the tracking number generated after submission. Proprietary information may be submitted electronically to Sean O'Tormey and Nick DeLotell at Sean.P.O'Tormey@faa.gov and Nicholas.DeLotell@faa.gov, respectively.

If you want us to process your request any further, we must receive the information described above by September 30, 2021, 11:59 p.m. eastern time. If we do not receive the information, we will close the docket without notifying you further. If you have any questions or require additional time, you may email us or call (202) 710-1163.

Respectfully,

Nick DeLotell
Aviation Safety Inspector
FAA Flight Standards Service
General Aviation & Commercial Division | Ops Group
800 Independence Ave, SW | Washington, DC 20591
Text | Phone (202) 710-1163

For help with 49 U.S.C. § 44807 Special Authority for Certain Unmanned Systems (UAS Exemptions), see:
www.faa.gov/uas/advanced_operations/certification/section_44807